

CLAIMS

1. (Currently Amended) An apparatus for generating Oxygen, comprising:
 - a vessel containing a heat absorbing salt;
 - a humidifier at least configured to be in communication with the vessel for the transfer of fluid directly or indirectly between the humidifier and vessel; and
 - an aqueous, Oxygen producing solution contained in the vessel.
2. (Previously Presented) The apparatus of Claim 1, wherein the aqueous, Oxygen producing solution further comprises a reactant dissolved in water, the reactant selected from the group consisting of Sodium Percarbonate ($2\text{Na}_2\text{CO}_3 \bullet 3\text{H}_2\text{O}_2$) or Sodium Perborate (NaBHO_3).
3. (Previously Presented) The apparatus of Claim 1 or 2, wherein the aqueous, Oxygen producing solution further comprises a catalyst, wherein the catalyst is at least non-toxic, at least not an environmental hazard, at least not an explosive hazard, at least not a fire hazard, and at least having a long shelf-life.
4. (Previously Presented) The apparatus of Claim 1, wherein the aqueous, Oxygen producing solution further comprises a catalyst comprising Manganese Dioxide (MnO_2).
5. (Previously Presented) The apparatus of Claim 3, wherein the catalyst further comprises a mixture of Manganese Dioxide (MnO_2) and Sodium Carbonate (Na_2CO_3).

6. (Previously Presented) The apparatus of Claim 1, wherein the aqueous, Oxygen producing solution further comprises a catalyst, and wherein the catalyst further comprises a metal oxide.

7. (Previously Presented) The apparatus of Claim 3, wherein the catalyst further comprises a metal oxide.

8. (Canceled)

9. (Previously Presented) The apparatus of Claim 1, wherein the apparatus further comprises a fluid transfer member at least configured to allow the transfer of fluid between the vessel and the humidifier.

10. (Currently Amended) An apparatus for generating Oxygen, comprising:

a vessel containing a heat absorbing salt, the vessel configured for at least containing an aqueous reaction;

a humidifier at least configured to be in fluid communication with the vessel; and

a water-soluble reactant to at least be used as an Oxygen producing reactant in the aqueous reaction.

11. (Original) The apparatus of Claim 10, wherein the water-soluble reactant further comprises a reactant selected from the group consisting of Sodium Percarbonate ($2\text{Na}_2\text{CO}_3 \bullet 3\text{H}_2\text{O}_2$) or Sodium Perborate (NaBHO_3) dissolved in water.

12. (Previously Presented) The apparatus of Claim 10 or 11, wherein the apparatus further comprises a catalyst, wherein the catalyst is at least non-toxic, at least not an environmental hazard, at least not an explosive hazard, at least not a fire hazard, and at least having long shelf-life.

13. (Previously Presented) The apparatus of Claim 10, wherein the apparatus further comprises a catalyst comprising Manganese Dioxide (MnO_2).

14. (Previously Presented) The apparatus of Claim 12, wherein the catalyst comprises a mixture of Manganese Dioxide (MnO_2) and Sodium Carbonate (Na_2CO_3).

15. (Previously Presented) The apparatus of Claim 10, wherein the apparatus further comprises a catalyst comprising a metal oxide.

16. (Previously Presented) The apparatus of Claim 12, wherein the catalyst further comprises a metal oxide.

17. (Canceled)

18. (Previously Presented) The apparatus of Claim 10, wherein the apparatus further comprises a duct member at least configured to transport fluid along at least a portion of a path directly or indirectly extending between the vessel and the humidifier.

19. (Currently Amended) An apparatus for generating Oxygen, comprising:

a vessel containing a heat absorbing salt, the vessel configured to at least contain an aqueous reaction;

a humidifier at least configured to be in fluid communication with the vessel;

a water-soluble powder or liquid at least to be used as a reactant in the aqueous reaction; and

a catalyst.

20. (Original) The apparatus of Claim 19, wherein the water-soluble powder or liquid further comprises a reactant selected from the group consisting of Sodium Percarbonate ($2\text{Na}_2\text{CO}_3 \bullet 3\text{H}_2\text{O}_2$) or Sodium Perborate (NaBHO_3) dissolved in water.

21. (Canceled).

22. (Previously Presented) The apparatus of Claim 19, wherein the catalyst comprises Manganese Dioxide (MnO_2).

23. (Previously Presented) The apparatus of Claim 20, wherein the catalyst comprises a mixture of Manganese Dioxide (MnO_2) and Sodium Carbonate (Na_2CO_3).

24. (Previously Presented) The apparatus of Claim 19, wherein the catalyst comprises a metal oxide.

25. (Previously Presented) The apparatus of Claim 20, wherein the catalyst comprises a metal oxide.

26. (Canceled)

27. (Previously Presented) The apparatus of Claim 19, wherein the apparatus further comprises a fluid conveyance system at least configured to transport fluid along at least a portion of a path extending between the vessel and the humidifier.

28. (Currently Amended) A method for operating an Oxygen producing generator, comprising:

filling a vessel with water, wherein the vessel is in fluid communication with a humidifier;
dissolving in at least a portion of the water a water-soluble powder or liquid at least used as a Oxygen producing reactant, thereby producing a solution generating Oxygen;
inserting a heat absorbing salt into the vessel; and
directing at least a portion of the Oxygen within the vessel to the humidifier.

29. (Previously Presented) The method of Claim 28, wherein the method further comprises:

introducing a catalyst into at least a portion of the solution after the water-soluble powder is dissolved, wherein the catalyst is at least non-toxic, at least not an environmental hazard, at least not an explosive hazard, at least not a fire hazard, and at least having a long shelf-life.

30. (Previously Presented) The method of Claim 28, wherein the method further comprises:

introducing a catalyst into at least a portion of the solution simultaneously with the water-soluble powder, wherein the catalyst is at least non-toxic, at least not an environmental hazard, at least configured not an explosive hazard, at least not a fire hazard, and at least having long shelf-life.

31. (Previously Presented) The apparatus of Claim 4, wherein the catalyst comprises Sodium Carbonate (Na_2CO_3).

32. (Previously Presented) The apparatus of Claim 13, wherein the catalyst comprises Sodium Carbonate (Na_2CO_3).

33. (Previously Presented) The apparatus of Claim 22, wherein the catalyst further comprises Sodium Carbonate (Na_2CO_3).

34. (New) An apparatus for generating Oxygen, comprising:

a vessel containing a heat absorbing salt; and

an aqueous, Oxygen producing solution contained in the vessel.

35. (New) The apparatus of Claim 34, wherein the aqueous, Oxygen producing solution further comprises a reactant dissolved in water, the reactant selected from the group consisting of Sodium Percarbonate ($2\text{Na}_2\text{CO}_3 \bullet 3\text{H}_2\text{O}_2$) or Sodium Perborate (NaBHO_3).

36. (New) The apparatus of Claim 34, wherein the aqueous, Oxygen producing solution further comprises a catalyst comprising Manganese Dioxide (MnO_2).

37. (New) The apparatus of Claim 34, wherein the catalyst further comprises Sodium Carbonate (Na_2CO_3).

38. (New) The apparatus of Claim 34, wherein the catalyst further comprises a mixture of Manganese Dioxide (MnO_2) and Sodium Carbonate (Na_2CO_3).

39. (New) The apparatus of Claim 34, wherein the aqueous, Oxygen producing solution further comprises a catalyst, and wherein the catalyst further comprises a metal oxide.

40. (New) The apparatus of Claim 34, wherein the heat absorbing salt comprises a hydrated salt.

41. (New) The apparatus of Claim 40, wherein the hydrated salt comprises Sodium-based compound.

42. (New) The apparatus of Claim 34, wherein the heat absorbing salt is a Sodium-based compound.